



Unified Government Integrated Overflow Control Program

January 23, 2017

Kansas City Urban Stormwater Conference



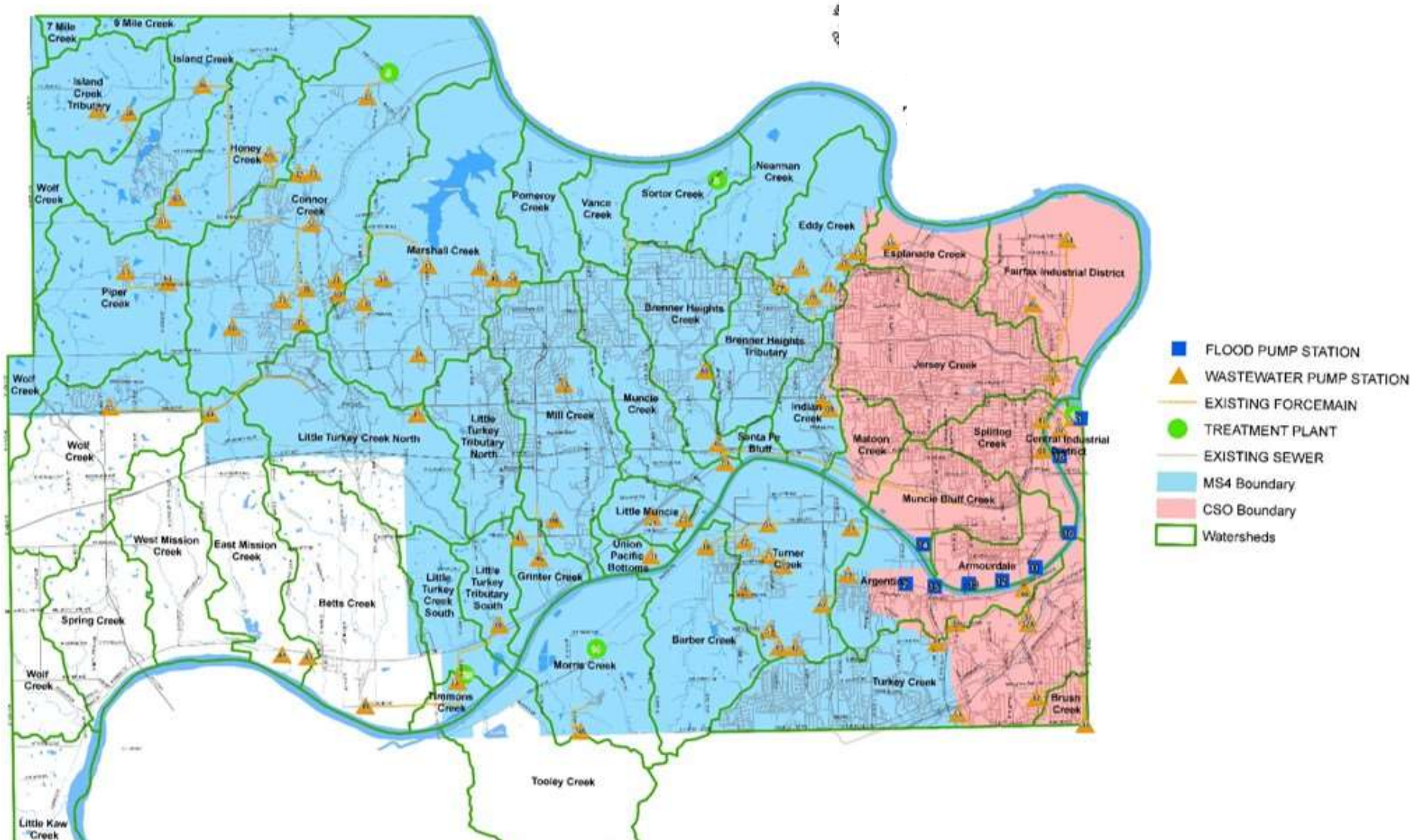
Background

Sewer System Metrics

- ▶ ~\$34 million 2016 budget
- ▶ 160 square mile service area
- ▶ 40,000 residential accounts
- ▶ 3,500 commercial/industrial accounts
- ▶ 115 employees
- ▶ 5 wastewater treatment plants
- ▶ 1,200 miles of sewers
- ▶ 71 wastewater pump stations
- ▶ 9 flood pump stations
- ▶ 20 miles of flood control levees (support)
- ▶ Combined, separate sanitary and storm sewers

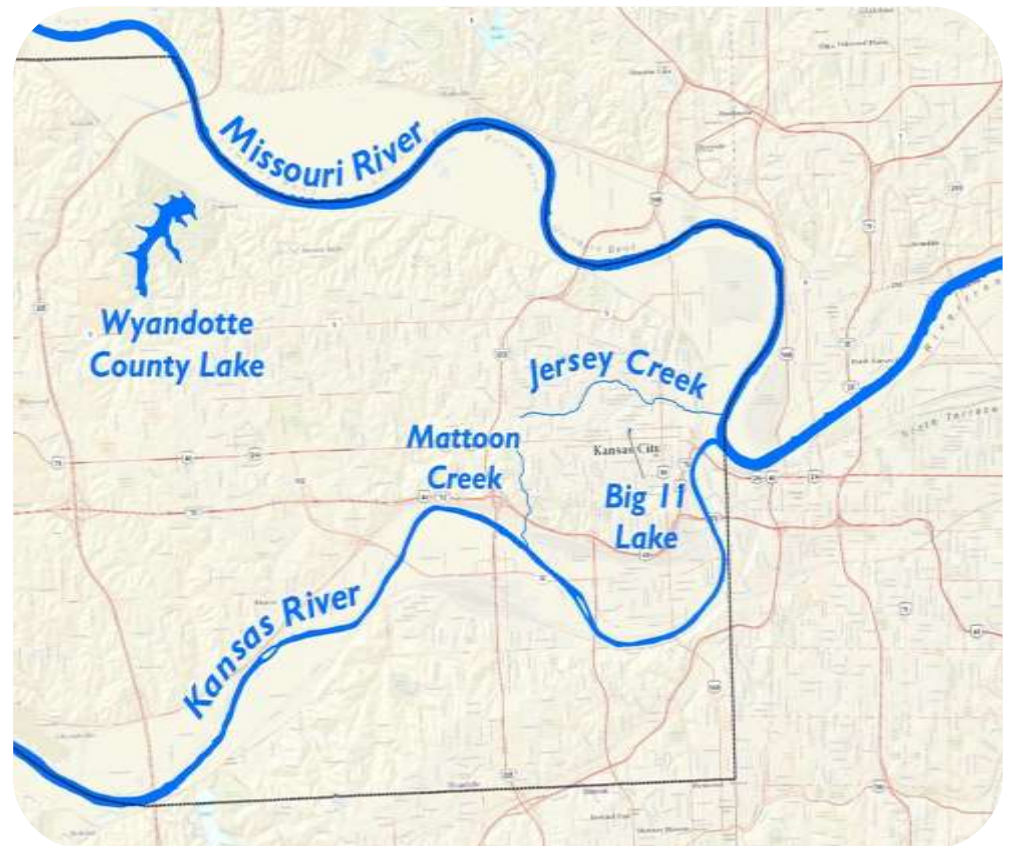


Sewer System



CSO Receiving Streams

- ▶ Kansas River (7 outfalls)
- ▶ Missouri River (6 outfalls)
- ▶ Mattoon Creek (2 outfalls)
- ▶ Jersey Creek (24 outfalls)

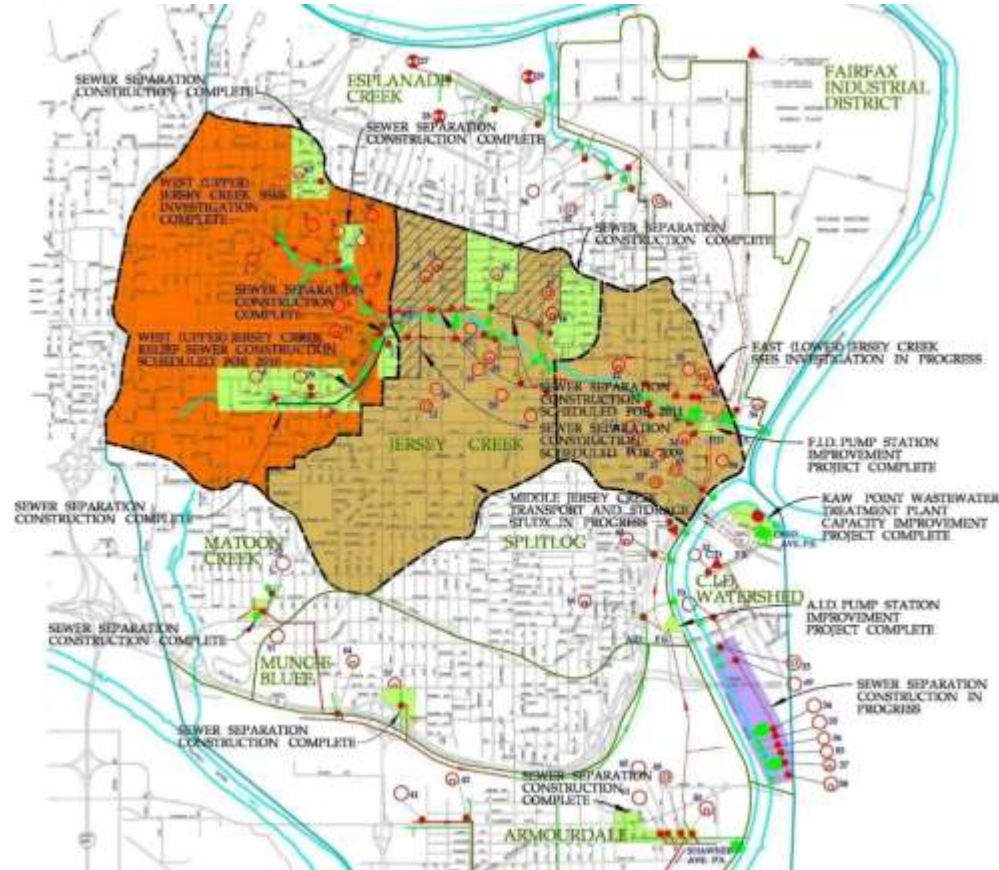




Partial Consent Decree

CSO Long-Term Control Plan

- ▶ September 1996
 - ▶ *KDHE issues NPDES Permit requiring CSO compliance*
- ▶ November 2000
 - ▶ *CSO Long-Term Control Plan submitted*
- ▶ August 2001
 - ▶ *First sewer separation project began (Jersey Creek)*



Reduced number of CSO outfalls from 66 to 39 and annual overflow volume by almost 20%

Partial Consent Decree History

- ▶ January 2007 - CSO Long-Term Control Plan considered inadequate by EPA
- ▶ 2008 - EPA initiated enforcement alleging violations of the Clean Water Act
 - ▶ *NPDES Permit*
 - ▶ *MS4 Permit*
 - ▶ *Dry weather CSOs and constructed SSOs*
 - ▶ *Inadequate CSO LTCP and SWMP*



Partial Consent Decree History

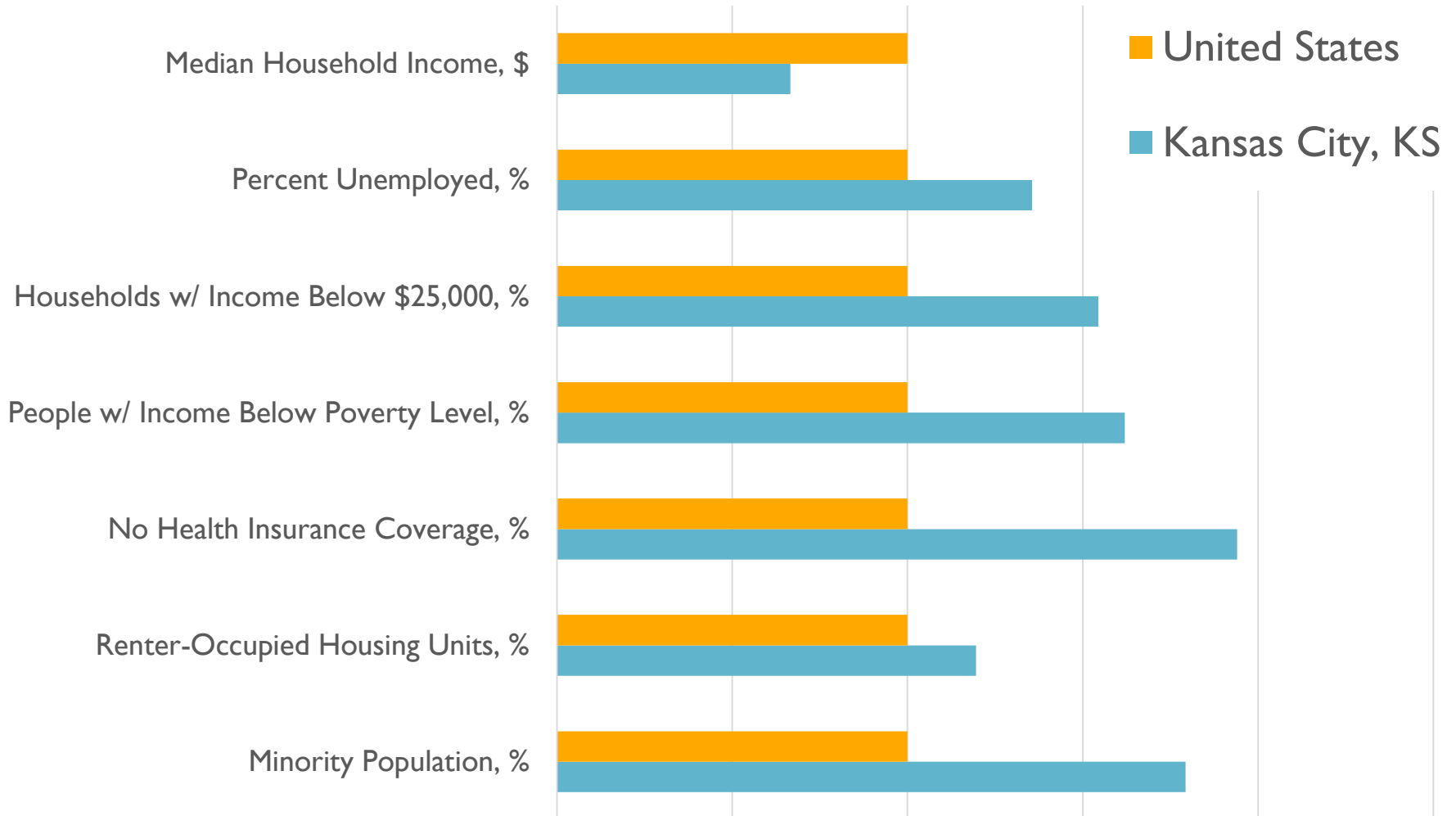
- ▶ May 2013 - Partial Consent Decree became effective
- ▶ Key compliance measures
 - ▶ Stormwater Management Plan
 - ▶ FOG Control Program
 - ▶ CMOM Program Plan
 - ▶ PCD Stipulated Projects (Treatment and Collection Systems)
 - ▶ Combined Sewer System Characterization Plan
 - ▶ Sanitary Sewer System Characterization Plan
 - ▶ Integrated Overflow Control Plan (Submitted 9/30/16)



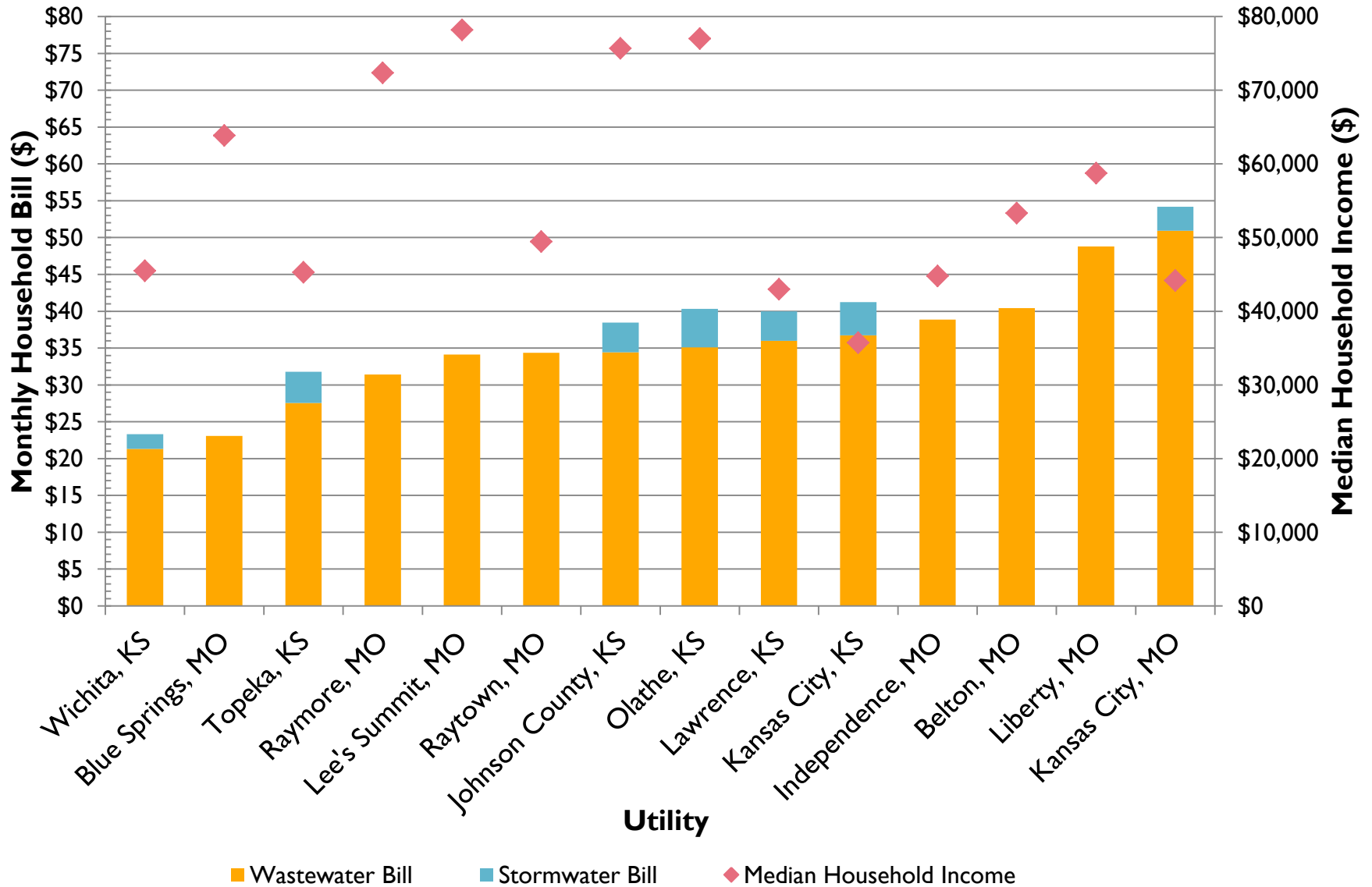


Characterization and Assessment Findings

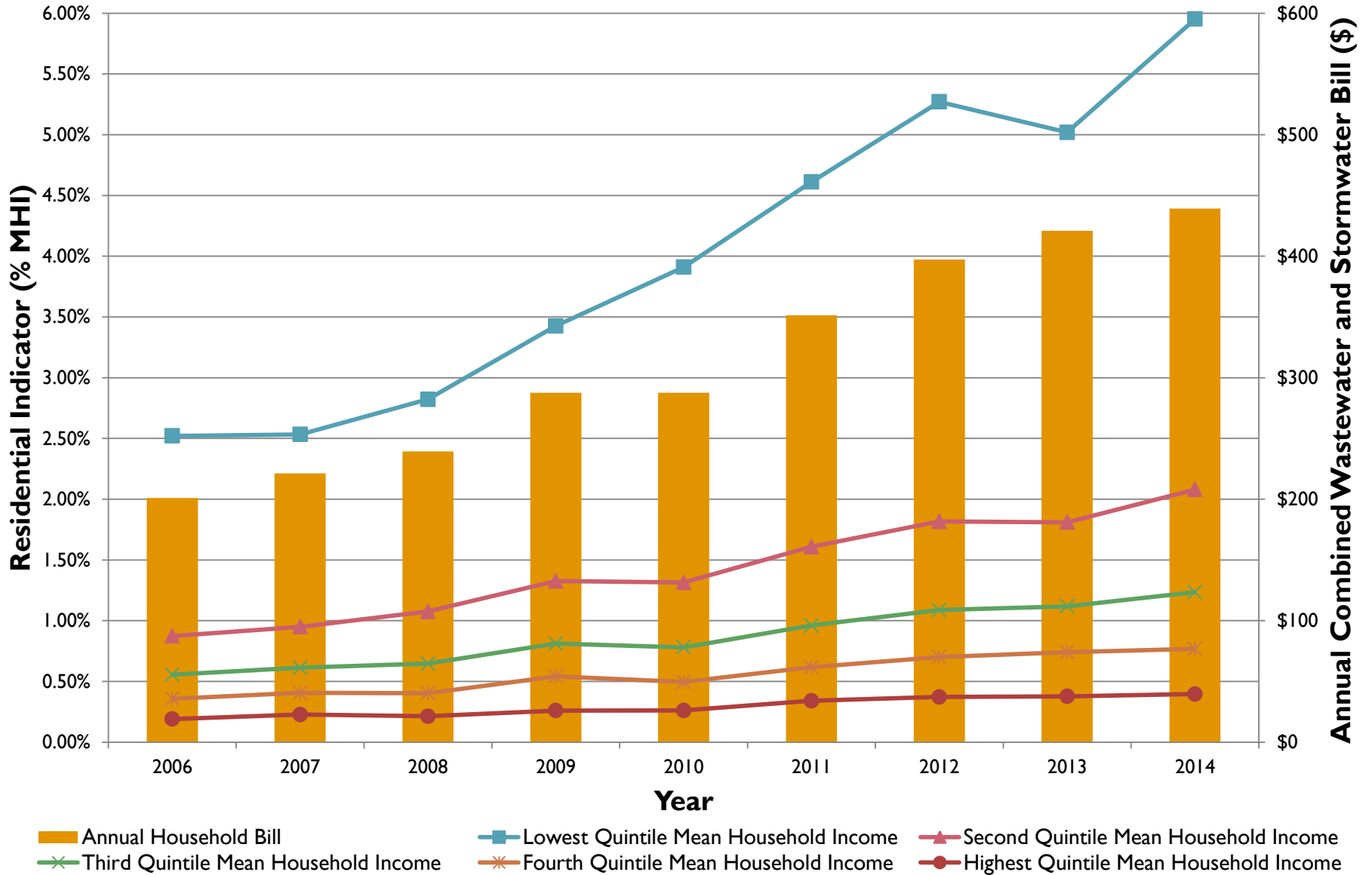
Community Profile



Regional Monthly Bill and Household Income Comparisons



Residential Indicator - Household Bill Comparison



Infrastructure Condition Assessment

- ▶ Substantial infrastructure upgrade, renewal, operation, and maintenance needs



Water Quality Characterization

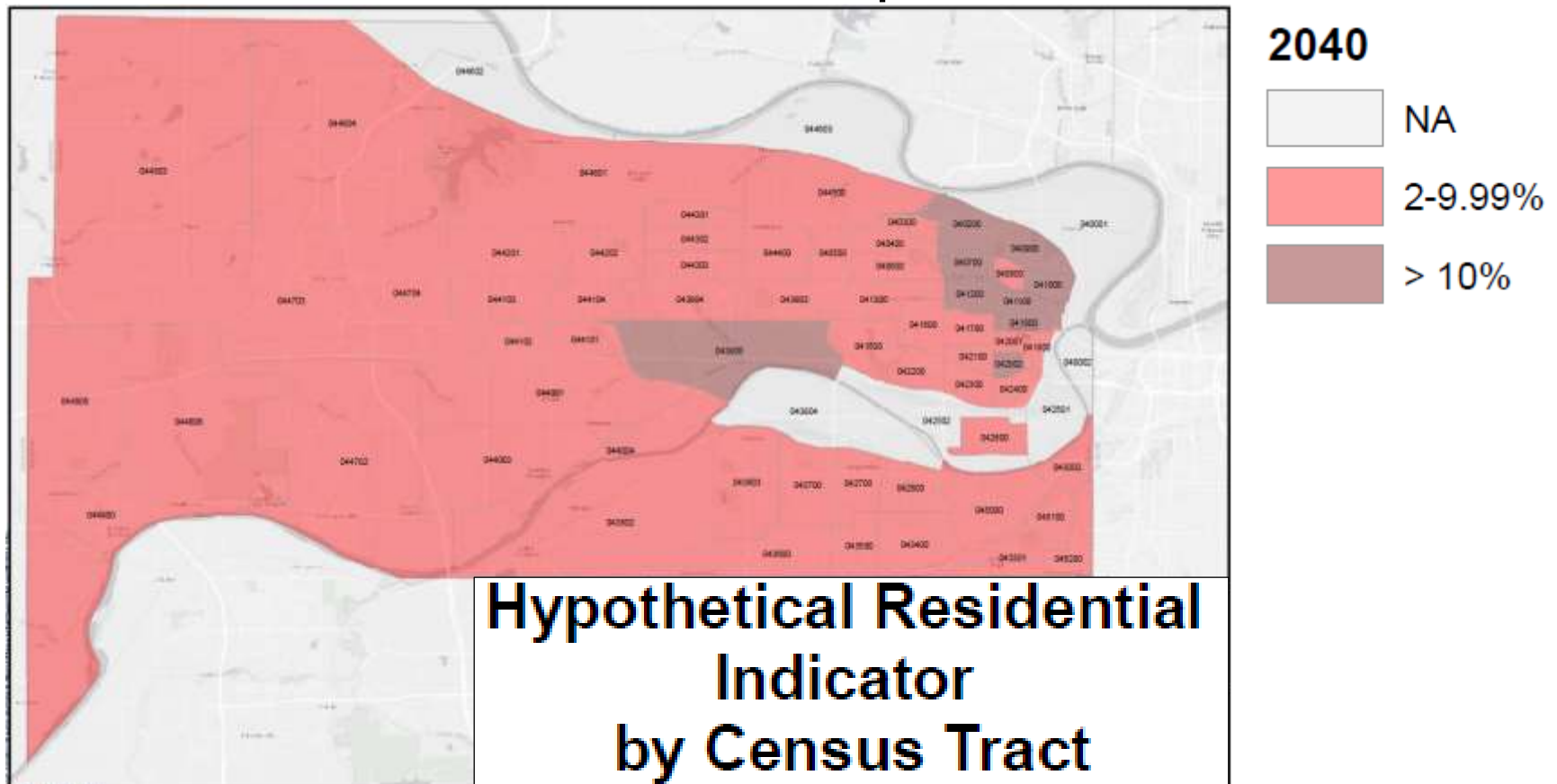
- ▶ Water quality standards and uses cannot consistently be met due to pollution sources other than CSOs

E. COLI LOADING CONTRIBUTION

SOURCE	KANSAS RIVER	MISSOURI RIVER
Upstream sources	~73%	~95%
UG CSO discharges	~10%	~3%

Financial Capability Assessment

- ▶ Burden and level of debt required to meet the desired level of control would be unacceptable and unsustainable



Public Participation

- ▶ Fix existing sewer system
- ▶ Phased approach to make smarter decisions
- ▶ Affordability is important
- ▶ Address community priorities
- ▶ Provide employment opportunities for citizens





Integrated Overflow Control Plan

Recommended 10-Year Plan

- Focusing on fixing the pipes and facilities that we already have
- Learning more about how our system works so that we can make smart decisions
- Working toward reducing overflows to improve water quality and protect public health



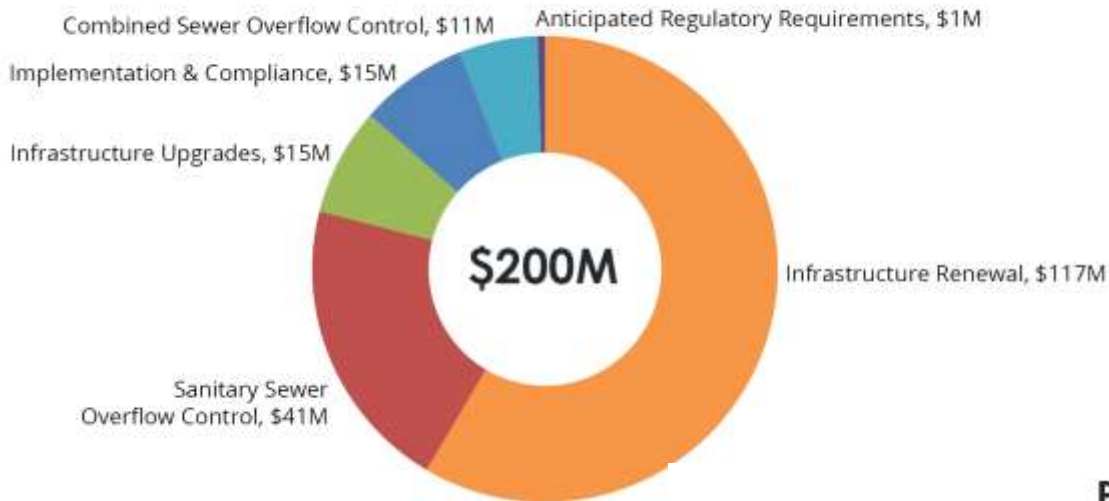
Recommended \$200 Million Plan

- ▶ Investigate and repair existing sewer pipes
- ▶ Upgrade technology throughout facilities to monitor the system
- ▶ Construct a new wastewater treatment plant
- ▶ Reduce rainwater getting into combined sewers by repairing pipes and installing green infrastructure
- ▶ Increase maintenance of existing sewer pipes and facilities

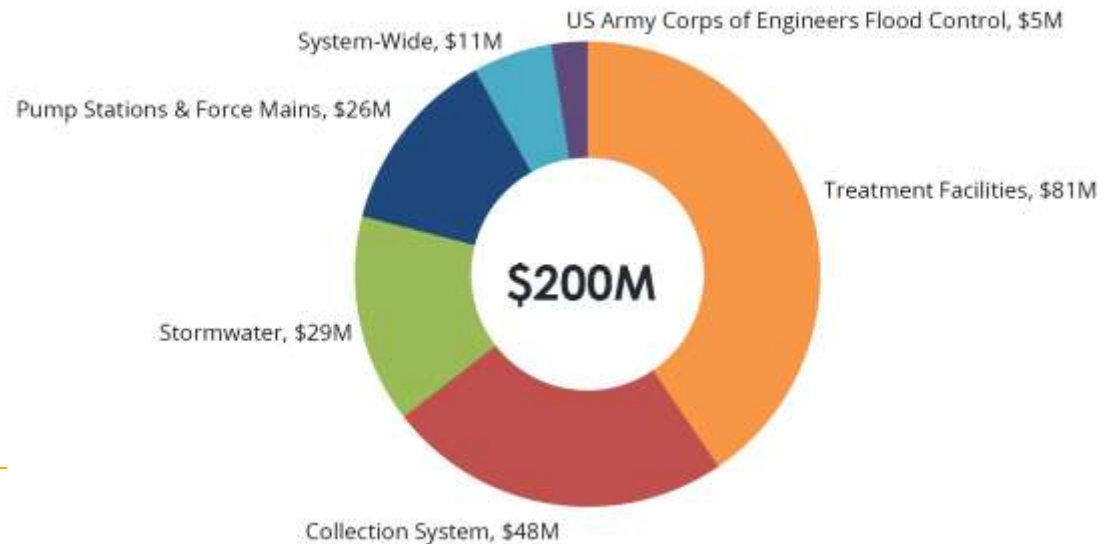


Recommended Plan Components

PROJECT TYPE



PROJECT SYSTEM



Projected Typical Monthly Bill



Monthly bill will increase by about \$2 each year for the next 10 years



The Future

Recent Developments

- ▶ January 2016 – Plan implementation began
- ▶ September 2016 – Plan was submitted on time
- ▶ December 2016 – Final PCD-stipulated project completed
- ▶ December 2016 – DOJ requested additional information and clarification regarding the financial capability assessment



Future Compliance Schedule?



Future Compliance Schedule?

